

Current Status of All Claims 1-127 in the present Application:

1. (Original) An exposure apparatus that transfers an image set movably by a stage assembly onto a device utilizing a beam of light, the exposure apparatus being adapted to be mounted to a mounting base, the exposure apparatus comprising:
 - a base assembly that includes at least a portion of the stage assembly;
 - a base isolation system that secures the base assembly to the mounting base, the base isolation system reducing the effect of vibration of the mounting base causing vibration on the base assembly;
 - an optical assembly that includes an optical device that directs the beam of light and a stage base of the stage assembly; and
 - an optical isolation system that secures the optical assembly to the base assembly, the optical isolation system reducing the effect of vibration of the base assembly causing vibration on at least one of the optical assembly and the optical device.
2. (Original) The exposure apparatus of claim 1 wherein the base isolation system includes a plurality of spaced apart base flexible supports that attenuates movement of the base assembly relative to the mounting base.
3. (Original) The exposure apparatus of claim 1 wherein the base isolation system includes a plurality of spaced apart base movers that adjusts the position of the base assembly relative to the mounting base.
4. (Original) The exposure apparatus of claim 1 wherein the optical isolation system includes a plurality of spaced apart assembly flexible supports that attenuates movement of the optical assembly relative to the base assembly.

5. (Original) The exposure apparatus of claim 1 wherein the optical isolation system includes a plurality of spaced apart assembly movers that adjusts the position of the optical assembly.

6. (Original) The exposure apparatus of claim 1 wherein (i) the base isolation system includes a plurality of spaced apart base flexible supports that attenuates movement of the base assembly relative to the mounting base and a plurality of spaced apart base, movers that adjusts the position of the base assembly relative to the mounting base and (ii) the optical isolation system includes a plurality of spaced apart assembly flexible supports that attenuates movement of the optical assembly relative to the base assembly and a plurality of spaced apart assembly movers that adjusts the position of the optical assembly relative to the base assembly.

7. (Original) The exposure apparatus of claim 1 wherein the base assembly includes a base frame that supports a portion of the stage assembly.

8. (Original) The exposure apparatus of claim 7 wherein the base assembly also includes a portion of a second stage assembly that is at least partly supported by the base frame.

9. (Original) The exposure apparatus of claim 8 wherein the base assembly further comprises a first enclosure that substantially encircles the stage assembly.

10. (Original) The exposure apparatus of claim 9 wherein the base assembly further comprises a second enclosure that substantially encircles the second stage assembly.

11. (Original) The exposure apparatus of claim 7 wherein the base frame defines a frame aperture and wherein a portion of the optical assembly extends into the frame aperture.

12. (Original) The exposure apparatus of claim 11 wherein the optical assembly includes an optical frame that fits within the frame aperture of the base frame, the optical frame being secured to the optical device.

13. (Original) The exposure apparatus of claim 1 further comprising a support frame that extends between the mounting base and the base isolation system to support the base assembly away from the mounting base.

14. (Original) The exposure apparatus of claim 13 wherein the optical isolation system includes an assembly mover that adjusts the position of the optical assembly relative to the base assembly, the assembly mover including a first component that is secured to the support frame and a second component that is secured to the optical assembly.

15. (Original) The exposure apparatus of claim 13 including a base position sensor that monitors the position of the base assembly relative to the support frame.

16. (Original) The exposure apparatus of 13 including a base acceleration sensor for measuring the absolute acceleration of the base assembly.

17. (Original) The exposure apparatus of claim 1 wherein the optical assembly includes an optical frame that is secured to the optical device.

18. (Original) The exposure apparatus of claim 17 wherein at least a portion of a measurement system is secured to the optical assembly.

19. (Original) The exposure apparatus of claim 1 wherein the stage base is secured to the optical assembly.

20. (Original) A device manufactured with the exposure apparatus according to claim 1.

21. (Original) A wafer on which an image has been formed by the exposure apparatus of claim 1.

22. (Original) The exposure apparatus of claim 1 wherein the base isolation system and the optical isolation system are at approximately the same height along the Z axis.

23. (Original) A method for making an exposure apparatus that transfers an image set movably by a stage assembly onto a device utilizing a beam of light, the exposure apparatus being adapted to be mounted to a mounting base, the method comprising the steps of:

providing a base assembly that includes at least a portion of the stage assembly;

providing a base isolation system;

securing the base assembly to the mounting base with the base isolation system, the base isolation system reducing the effect of vibration of the mounting base causing vibration on the base assembly;

providing an optical assembly that includes an optical device that directs the beam of light and a stage base of the stage assembly;

providing an optical isolation system; and

securing the optical assembly to the base assembly with the optical isolation system, the optical isolation system reducing the effect of vibration of the base assembly causing vibration on at least one of the optical assembly and the optical device.

24. (Original) The method of claim 23 wherein the step of providing a base isolation system includes providing a plurality of spaced apart base flexible supports for attenuating movement of the base assembly relative to the mounting base.

25. (Original) The method of claim 23 wherein the step of providing a base isolation system includes providing a plurality of spaced apart base movers for adjusting the position of the base assembly relative to the mounting base.

26. (Original) The method of claim 23 wherein the step of providing an optical isolation system includes providing a plurality of spaced apart assembly flexible supports for attenuating movement of the optical assembly relative to the base assembly.

27. (Original) The method of claim 23 wherein the step of providing an optical isolation system includes providing a plurality of spaced apart assembly movers for adjusting the position of the optical assembly relative to the base assembly.

28. (Original) The method of claim 23 wherein (i) the step of providing a base isolation system includes providing a plurality of spaced apart base flexible supports for attenuating movement of the base assembly relative to the mounting base and a plurality of spaced apart base movers for adjusting the position of the base assembly relative to the mounting base and (ii) the step of providing an optical isolation system includes providing a plurality of spaced apart assembly flexible supports for attenuating movement of the optical assembly relative to the base assembly and a plurality of spaced apart assembly movers for adjusting the position of the optical assembly relative to the base assembly.

29. (Original) The method of claim 23 wherein the step of providing a base assembly includes providing a base frame that supports a portion of the stage assembly.

30. (Original) The method of claim 29 wherein the step of providing a base assembly includes providing a portion of a second stage assembly that is at least partly supported by the base frame.

31. (Original) The method of claim 30 wherein the step of providing a base assembly includes providing a first enclosure that substantially encircles the stage assembly.

32. (Original) The method of claim 31 wherein the step of providing a base assembly further includes providing a second enclosure that substantially encircles the second stage assembly.

33. (Original) The method of claim 29 wherein the step of providing a base frame includes providing a base frame having a frame aperture and wherein a portion of the optical assembly extends into the frame aperture.

34. (Original) The method of claim 33 wherein the step of providing an optical assembly includes providing an optical frame that fits with the frame aperture of the base frame, the optical frame being secured to the optical device.

35. (Original) The method of claim 23 further comprising the step of providing a support frame that extends between the mounting base and the base isolation system to support the base assembly above the mounting base.

36. (Original) The method of claim 35 wherein the step of providing an optical isolation system includes providing an assembly mover for adjusting the position of the optical assembly relative to the base assembly, the assembly mover including a first component that is secured to the support frame and a second component that is secured to the optical assembly.

37. (Original) The method of claim 35 including the step of providing a base position sensor for monitoring the position of the base assembly relative to the support frame.

38. (Original) The method of claim 35 including a base acceleration sensor for measuring the absolute acceleration of the base assembly.

39. (Original) The method of claim 24 wherein the step of providing an optical assembly includes providing an optical frame that is secured to the optical device.

40. (Original) The method of claim 39 including the step of providing a measurement system that is at least partly secured to the optical assembly.

41. (Original) The method of claim 23 including the step of securing the stage base of the stage assembly to the optical assembly.

42. (Original) The method of claim 23 wherein (i) the step of providing a base isolation system includes providing a plurality of spaced apart base flexible supports for attenuating movement of the base assembly relative to the mounting base and adjusting the position of the base assembly relative to the mounting base and (ii) the step of providing an optical isolation system includes providing a plurality of spaced apart assembly flexible supports for attenuating movement of the optical assembly relative to the base assembly and adjusting the position of the optical assembly relative to the base assembly.

43. (Original) A method of making a wafer utilizing the exposure apparatus made by the method of claim 23.

44. (Original) A method of making a device including at least an exposure process, wherein the exposure process utilizes the exposure apparatus made by the method of claim 23.

45-56. (Canceled)

57. (Original) An exposure apparatus that transfers an image set movably by a stage assembly onto a device utilizing a beam of light, the exposure apparatus being adapted to be mounted to a mounting base, the exposure apparatus comprising:

 a base assembly that includes at least a portion of the stage assembly;

 an optical assembly that includes an optical frame, an optical device and a sensor column, the optical device directs the beam of light, the optical frame including a center frame, the sensor column including a first sensor mount that secures the sensor column to the optical frame; and

 an optical isolation system that secures the optical assembly to the base assembly, the optical isolation system including a first support that is secured to the center frame, the optical isolation system reducing the effect of vibration of the base assembly causing vibration on at least one of the optical assembly and the optical device; wherein the first support and the first sensor mount are substantially aligned along a first Z axis.

58. (Original) The exposure apparatus of claim 57 further comprising a base isolation system that secures the base assembly to the mounting base, the base isolation system reducing the effect of vibration of the mounting base causing vibration on the base assembly.

59. (Original) The exposure apparatus of claim 58 wherein the base isolation system and the optical isolation system are at approximately the same height along a Z axis.

60. (Original) The exposure apparatus of claim 57 wherein the optical frame includes a first upper base mount that supports a stage base, wherein a proximal section of the first upper base mount and the first support are substantially aligned along the first Z axis.

61. (Original) The exposure apparatus of claim 57 wherein the optical isolation system includes a first assembly mover that adjusts the position of the optical assembly relative to the base assembly, the first assembly mover being substantially positioned along the first Z axis.

62. (Original) The exposure apparatus of claim 57 wherein the sensor column includes a second sensor mount that secures the sensor column to the optical frame, and the optical isolation system includes a second support, wherein the second sensor mount and the second support are positioned substantially along a second Z axis.

63. (Original) The exposure apparatus of claim 62 wherein the sensor column includes a third sensor mount that secures the sensor column to the optical frame and the optical isolation system includes a third support, wherein the third sensor mount and the third support being substantially positioned along a third Z axis.

64. (Previously Presented) An exposure apparatus that transfers an image set movably by a stage assembly onto a device utilizing a beam of light, the exposure apparatus being adapted to be mounted to a mounting base, the exposure apparatus comprising:

- a base assembly that includes at least a portion of the stage assembly;
- a base isolation system that secures the base assembly to the mounting base, the base isolation system reducing the effect of vibration of the mounting base causing vibration on the base assembly;
- an optical assembly that includes an optical frame, an optical device and a stage base, the optical device directs the beam of light and the stage base

supports a portion of the stage assembly, the optical frame including a center frame and a first upper base mount that supports the stage base; and

an optical isolation system that secures the optical assembly to the base assembly, the optical isolation system including a first support that is secured to the center frame, the optical isolation system reducing the effect of vibration of the base assembly causing vibration on at least one of the optical assembly and the optical device, wherein the first support and a proximal section of the first upper base mount are substantially aligned along a first Z axis.

65. (Previously Presented) The exposure apparatus of claim 64 wherein the base isolation system and the optical isolation system are at approximately the same height along a Z axis.

66. (Previously Presented) The exposure apparatus of claim 64, wherein the optical frame includes a second upper base mount that supports the stage base, wherein the optical isolation system includes a second support that is secured to the center frame, and wherein a proximal section of the second upper base mount and the second support are substantially aligned along a second Z axis.

67. (Previously Presented) The exposure apparatus of claim 66 wherein the optical frame includes a third upper base mount that supports the stage base, wherein the optical isolation system includes a third support that is secured to the center frame, and wherein a proximal section of the third upper base mount and the third support are substantially aligned along a third Z axis.

68. (Previously Presented) The exposure apparatus of claim 64 wherein the optical isolation system includes a first assembly mover that adjusts the position of the optical assembly relative to the base assembly, the first assembly mover being substantially positioned along the first Z axis.

69. (Previously Presented) The exposure apparatus of claim 64 wherein the optical assembly further comprises a sensor column including a first sensor mount that secures the sensor column to the optical frame, the first sensor mount being substantially positioned along the first Z axis.

70. (Previously Presented) The exposure apparatus of claim 69 wherein the sensor column includes a second sensor mount that secures the sensor column to the optical frame, and the optical isolation system includes a second support, wherein the second sensor mount and the second support are positioned substantially along a second Z axis.

71. (Previously Presented) The exposure apparatus of claim 70 wherein the sensor column includes a third sensor mount that secures the sensor column to the optical frame, and the optical isolation system includes a third support, wherein the third sensor mount and the third support are positioned substantially along a third Z axis.

72. (Previously Presented) The exposure apparatus of claim 64 wherein the base assembly further includes a base frame and a portion of a second stage assembly, wherein the stage assembly and the second stage assembly are at least partly supported by the base frame.

73. (Previously Presented) The exposure apparatus of claim 72 wherein the base assembly further includes a first enclosure that substantially encircles the stage assembly and a second enclosure that substantially encircles the second stage assembly.

74. (Previously Presented) The exposure apparatus of claim 64 wherein the base assembly defines a frame aperture and wherein a portion of the optical assembly extends into the frame aperture.

75. (Previously Presented) A device manufactured with the exposure apparatus according to claim 64.

76. (Previously Presented) A wafer on which an image has been formed by the exposure apparatus of claim 64.

77. (Previously Presented) An exposure apparatus that transfers an image set movably by a stage assembly onto a device utilizing a beam of light, the exposure apparatus being adapted to be mounted to a mounting base, the exposure apparatus comprising:

a base assembly that includes at least a portion of the stage assembly;

an optical assembly that includes an optical frame, an optical device and a stage base, the optical device directs the beam of light and the stage base supports a portion of the stage assembly, the optical frame including a center frame, a first upper base mount that supports the stage base, a second upper base mount that supports the stage base, and a third upper base mount that supports the stage base; and

an optical isolation system that secures the optical assembly to the base assembly, the optical isolation system including a first support that is secured to the center frame, a second support that is secured to the center frame and a third support that is secured to the center frame, the optical isolation system reducing the effect of vibration of the base assembly causing vibration on at least one of the optical assembly and the optical device, wherein the first support and a proximal section of the first upper base mount are substantially aligned along a first Z axis, wherein the second support and a proximal section of the second upper base mount are substantially aligned along a second Z axis, and wherein the third support and a proximal section of the third upper base mount are substantially aligned along a third Z axis.

78. (Previously Presented) The exposure apparatus of claim 77 further

comprising a base isolation system that secures the base assembly to the mounting base, the base isolation system reducing the effect of vibration of the mounting base causing vibration on the base assembly.

79. (Previously Presented) The exposure apparatus of claim 77 wherein the optical isolation system includes a first assembly mover that adjusts the position of the optical assembly relative to the base assembly, the first assembly mover being substantially positioned along the first Z axis.

80. (Previously Presented) The exposure apparatus of claim 77 wherein the optical assembly further comprises a sensor column including a first sensor mount that secures the sensor column to the optical frame, a second sensor mount that secures the sensor column to the optical frame and a third sensor mount that secures the sensor column to the optical frame, the first sensor mount being substantially positioned along the first Z axis, the second sensor mount being substantially positioned along the second Z axis, and the third sensor mount being substantially positioned along the third Z axis.

81. (Previously Presented) The exposure apparatus of claim 77 wherein the base assembly further includes a base frame and a portion of a second stage assembly, wherein the stage assembly and the second stage assembly are at least partly supported by the base frame.

82. (Previously Presented) The exposure apparatus of claim 81 wherein the base assembly further includes a first enclosure that substantially encircles the stage assembly and a second enclosure that substantially encircles the second stage assembly.

83. (Previously Presented) The exposure apparatus of claim 77 wherein the base assembly defines a frame aperture and wherein a portion of the optical assembly

extends into the frame aperture.

84. (Previously Presented) A device manufactured with the exposure apparatus according to claim 77.

85. (Previously Presented) A wafer on which an image has been formed by the exposure apparatus of claim 77.

86. (Previously Presented) An exposure apparatus that transfers an image set movably by a stage assembly onto a device utilizing a beam of light, the exposure apparatus being adapted to be mounted to a mounting base, the exposure apparatus comprising:

a base assembly that includes at least a portion of the stage assembly;

an optical assembly that includes an optical frame, an optical device, a stage base and a sensor column, the optical device directs the beam of light and the stage base supports a portion of the stage assembly, the optical frame including a center frame and a first upper base mount that supports the stage base, the sensor column including a first sensor mount that secures the sensor column to the optical frame; and

an optical isolation system that secures the optical assembly to the base assembly, the optical isolation system including a first support that is secured to the center frame, the optical isolation system reducing the effect of vibration of the base assembly causing vibration on at least one of the optical assembly and the optical device, wherein the first support, a proximal section of the first upper base mount and the first sensor mount are substantially aligned along a first Z axis.

87. (Previously Presented) The exposure apparatus of claim 86 further comprising a base isolation system that secures the base assembly to the mounting base, the base isolation system reducing the effect of vibration of the mounting base

causing vibration on the base assembly, the base isolation system and the optical isolation system being at approximately the same height along a Z axis.

88. (Previously Presented) The exposure apparatus of claim 86 wherein the optical frame includes a second upper base mount that supports the stage base, wherein the optical isolation system includes a second support that is secured to the center frame, and wherein a proximal section of the second upper base mount and the second support are substantially aligned along a second Z axis.

89. (Previously Presented) The exposure apparatus of claim 88 wherein the optical frame includes a third upper base mount that supports the stage base, wherein the optical isolation system includes a third support that is secured to the center frame, and wherein a proximal section of the third upper base mount and the third support are substantially aligned along a third Z axis.

90. (Previously Presented) The exposure apparatus of claim 86 wherein the optical isolation system includes a first assembly mover that adjusts the position of the optical assembly relative to the base assembly, the first assembly mover being substantially positioned along the first Z axis.

91. (Previously Presented) The exposure apparatus of claim 86 wherein the sensor column includes a second sensor mount that secures the sensor column to the optical frame, and the optical isolation system includes a second support, wherein the second sensor mount and the second support are positioned substantially along a second Z axis.

92. (Previously Presented) The exposure apparatus of claim 91 wherein the sensor column includes a third sensor mount that secures the sensor column to the optical frame, and the optical isolation system includes a third support, wherein the third sensor mount and the third support are positioned substantially along a third Z axis.

93. (Previously Presented) The exposure apparatus of claim 86 wherein the base assembly further includes a base frame and a portion of a second stage assembly, wherein the stage assembly and the second stage assembly are at least partly supported by the base frame.

94. (Previously Presented) The exposure apparatus of claim 93 wherein the base assembly further includes a first enclosure that substantially encircles the stage assembly and a second enclosure that substantially encircles the second stage assembly.

95. (Previously Presented) The exposure apparatus of claim 86 wherein the base assembly defines a frame aperture and wherein a portion of the optical assembly extends into the frame aperture.

96. (Previously Presented) A device manufactured with the exposure apparatus according to claim 86.

97. (Previously Presented) A wafer on which an image has been formed by the exposure apparatus of claim 86.

98. (Previously Presented) An exposure apparatus that transfers an image set movably by a stage assembly onto a device utilizing a beam of light, the exposure apparatus being adapted to be mounted to a mounting base, the exposure apparatus comprising:

an optical assembly that includes an optical frame, an optical device and a stage base, the optical device directs the beam of light and the stage base supports a portion of the stage assembly, the optical frame including a center frame and a first upper base mount that supports the stage base;

a base assembly that includes a base frame and at least a portion of the stage assembly, the base frame defining a frame aperture that is sized and

shaped to receive a portion of the optical assembly; and

an optical isolation system that secures the optical assembly to the base assembly, the optical isolation system including a first support that is secured to the center frame, the optical isolation system reducing the effect of vibration of the base assembly causing vibration on at least one of the optical assembly and the optical device, wherein the first support and a proximal section of the first upper base mount are substantially aligned along a first Z axis.

99. (Previously Presented) The exposure apparatus of claim 98 wherein the optical frame fits within the frame aperture of the base frame, and wherein the optical frame is secured to the optical device.

100. (Previously Presented) The exposure apparatus of claim 98 further comprising a base isolation system that secures the base assembly to the mounting base, the base isolation system reducing the effect of vibration of the mounting base causing vibration on the base assembly, the base isolation system and the optical isolation system being at approximately the same height along a Z axis.

101. (Previously Presented) The exposure apparatus of claim 98 wherein the optical frame includes a second upper base mount that supports the stage base, wherein the optical isolation system includes a second support that is secured to the center frame, and wherein a proximal section of the second upper base mount and the second support are substantially aligned along a second Z axis.

102. (Previously Presented) The exposure apparatus of claim 101 wherein the optical frame includes a third upper base mount that supports the stage base, wherein the optical isolation system includes a third support that is secured to the center frame, and wherein a proximal section of the third upper base mount and the third support are substantially aligned along a third Z axis.

103. (Previously Presented) The exposure apparatus of claim 98 wherein the optical isolation system includes a first assembly mover that adjusts the position of the optical assembly relative to the base assembly, the first assembly mover being substantially positioned along the first Z axis.

104. (Previously Presented) The exposure apparatus of claim 98 wherein the optical assembly further comprises a sensor column including a first sensor mount that secures the sensor column to the optical frame, the first sensor mount being substantially positioned along the first Z axis.

105. (Previously Presented) The exposure apparatus of claim 104 wherein the sensor column includes a second sensor mount that secures the sensor column to the optical frame, and the optical isolation system includes a second support, wherein the second sensor mount and the second support are positioned substantially along a second Z axis.

106. (Previously Presented) The exposure apparatus of claim 105 wherein the sensor column includes a third sensor mount that secures the sensor column to the optical frame, and the optical isolation system includes a third support, wherein the third sensor mount and the third support are positioned substantially along a third Z axis.

107. (Previously Presented) The exposure apparatus of claim 98 wherein the base assembly further includes a base frame and a portion of a second stage assembly, wherein the stage assembly and the second stage assembly are at least partly supported by the base frame.

108. (Previously Presented) The exposure apparatus of claim 107 wherein the base assembly further includes a first enclosure that substantially encircles the stage assembly and a second enclosure that substantially encircles the second stage assembly.

109. (Previously Presented) A device manufactured with the exposure apparatus according to claim 98.

110. (Previously Presented) A wafer on which an image has been formed by the exposure apparatus of claim 98.

111. (Currently Amended) An exposure apparatus that transfers an image onto a substrate by utilizing an optical device, the exposure apparatus being adapted to be mounted to a mounting base, the exposure apparatus comprising:

a stage that holds a reticle, the stage being movable relative to the optical device;

a stage base that supports the stage;

a base assembly;

a first isolation system that secures the stage base to the base assembly, the first isolation system including a first passive component for passively reducing the effect of vibration of the base assembly causing vibration on the stage base; and

a second isolation system that secures the base assembly to the mounting base, the second isolation system including a second passive component for passively reducing the effect of vibration of the mounting base causing vibration on the base assembly.

112. (Previously Presented) The exposure apparatus of claim 111 wherein the first isolation system includes a plurality of first flexible supports that attenuates movement of the stage base relative to the base assembly.

113. (Previously Presented) The exposure apparatus of claim 112 wherein the first isolation system includes a plurality of first movers that adjusts the position of the stage base.

114. (Previously Presented) The exposure apparatus of claim 113 wherein the second isolation system includes a plurality of second flexible supports that attenuates movement of the base assembly relative to the mounting base and a plurality of second movers that adjusts the position of the base assembly relative to the mounting base.

115. (Previously Presented) The exposure apparatus of claim 111 further comprising a measurement system that monitors the position of the stage relative to the optical device, the measurement system being adapted to be supported to the mounting base via the first isolation system and the second isolation system.

116. (Previously Presented) The exposure apparatus of claim 111 wherein the first isolation system secures the optical device to the base assembly.

117. (Previously Presented) The exposure apparatus of claim 111 wherein the first isolation system and the second isolation system are at approximately the same height along a Z axis.

118. (Currently Amended) An exposure apparatus that transfers an image onto a substrate by utilizing an optical means, the exposure apparatus being adapted to be mounted to a mounting base, the exposure apparatus comprising:

movable means for holding a reticle, the movable means being movable relative to the optical means;

stage base means for supporting the movable means;

base assembly means for supporting the stage base means;

first isolation means for securing the stage base means to the base assembly means, the first isolation means including a first passive component means for passively reducing the effect of vibration of the base assembly means causing vibration on the stage base means; and

second isolation means for securing the base assembly means to the mounting base means, the second isolation means including a second passive

component means for passively reducing the effect of vibration of the mounting base means causing vibration on the base assembly means.

119. (Currently Amended) A device manufacturing method comprising the steps of:

- providing an optical device;
- providing a substrate stage that holds a substrate;
- providing a reticle stage that holds a reticle, the reticle stage being movable relative to the optical device;
- supporting the reticle stage with a stage base;
- providing a base assembly;
- providing a mounting base;
- securing the stage base to the base assembly with a first isolation system, the first isolation system including a first passive component for passively reducing the effect of vibration of the base assembly causing vibration on the stage base;
- securing the base assembly to the mounting base with a second isolation system, the second isolation system including a second passive component for passively reducing the effect of vibration of the mounting base causing vibration on the base assembly;
- producing a relative movement between the optical device and the reticle; and
- exposing the substrate that is held by the substrate stage, by the optical device.

120. (New) The exposure apparatus of claim 111 wherein the first isolation system further includes a first active component for actively reducing the effect of vibration of the base assembly causing vibration on the stage base, and wherein the second isolation system further includes a second active component for actively reducing the effect of vibration of the mounting base causing vibration on the base

assembly.

121. (New) The exposure apparatus of claim 118 wherein the first isolation means further includes a first active component means for actively reducing the effect of vibration of the base assembly means causing vibration on the stage base means, and wherein the second isolation means further includes a second active component means for actively reducing the effect of vibration of the mounting base means causing vibration on the base assembly means.

122. (New) The device manufacturing method of claim 119 wherein the first isolation system further includes a first active component for actively reducing the effect of vibration of the base assembly causing vibration on the stage base, and wherein the second isolation system further includes a second active component for actively reducing the effect of vibration of the mounting base causing vibration on the base assembly.

123. (Previously Presented as dependent claim # 112) An exposure apparatus that transfers an image onto a substrate by utilizing an optical device, the exposure apparatus being adapted to be mounted to a mounting base, the exposure apparatus comprising:

a stage that holds a reticle, the stage being movable relative to the optical device;

a stage base that supports the stage;

a base assembly;

a first isolation system that secures the stage base to the base assembly, the first isolation system including a plurality of first flexible supports that attenuates movement of the stage base relative to the base assembly thereby reducing the effect of vibration of the base assembly causing vibration on the stage base; and

a second isolation system that secures the base assembly to the mounting

base, the second isolation system reducing the effect of vibration of the mounting base causing vibration on the base assembly.

124. (Previously Presented as dependent claim # 113) The exposure apparatus of claim 123 wherein the first isolation system further includes a plurality of first movers that adjusts the position of the stage base.

125. (Previously Presented as dependent claim # 114) The exposure apparatus of claim 123 wherein the second isolation system includes a plurality of second flexible supports that attenuates movement of the base assembly relative to the mounting base and a plurality of second movers that adjusts the position of the base assembly relative to the mounting base.

126. (Previously Presented as dependent claim # 116) An exposure apparatus that transfers an image onto a substrate by utilizing an optical device, the exposure apparatus being adapted to be mounted to a mounting base, the exposure apparatus comprising:

a stage that holds a reticle, the stage being movable relative to the optical device;

a stage base that supports the stage;

a base assembly;

a first isolation system that secures the stage base and the optical device to the base assembly, the first isolation system reducing the effect of vibration of the base assembly causing vibration on the stage base; and

a second isolation system that secures the base assembly to the mounting base, the second isolation system reducing the effect of vibration of the mounting base causing vibration on the base assembly.

127. (Previously Presented as dependent claim # 117) An exposure apparatus that transfers an image onto a substrate by utilizing an optical device, the exposure

apparatus being adapted to be mounted to a mounting base, the exposure apparatus comprising:

- a stage that holds a reticle, the stage being movable relative to the optical device;
- a stage base that supports the stage;
- a base assembly;
- a first isolation system that secures the stage base to the base assembly, the first isolation system reducing the effect of vibration of the base assembly causing vibration on the stage base; and
- a second isolation system that secures the base assembly to the mounting base, the second isolation system reducing the effect of vibration of the mounting base causing vibration on the base assembly, wherein the first isolation system and the second isolation system are at approximately the same height along a Z axis.